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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/612,272	07/02/2003	Val Kagan	09250.0001	4081

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EXAMINER

LEUNG, PHILIP H

ART UNIT

PAPER NUMBER

3742

DATE MAILED: 03/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

CM

Office Action Summary	Application No. 10/612,272	Applicant(s) KAGAN, VAL	
	Examiner Philip H Leung	Art Unit 3742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
 4a) Of the above claim(s) 18-23 and 25 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17, 24 and 26-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input checked="" type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>9-22, 10-5; 1-14 & 18</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Applicant's election with traverse of Figure 7, Claims 1-17 , 24 and 26-28 in the reply filed on 1-14-2005 is acknowledged. The traversal is on the ground(s) that the designated species are not of particular relevance to the searching or examination. This is not found persuasive because as pointed out in the election requirement, unless applicant traverses on the ground that the species are not patentably distinct, and submits evidence or identifies such evidence now of record showing the species to be obvious variants or clearly admits on the record that this is the case, the election requirement will not be withdrawn. Furthermore, upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. Therefore, time for searching and examination of the application is reduced as a result of the election.

The requirement is still deemed proper and is therefore made FINAL.

2. The drawings filed 7/2/2003 are objected to by the draftsman for the reasons set forth in the attached PTO Form-948.

Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

Art Unit: 3742

3. Claims 1-17, 24 and 26-28 are provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1-48 of copending Application No. 10/884,851. Both sets of claims are directed to an induction heating device and method using a power source providing current pulses with high frequency harmonics to a heater coil and/or an adjustable nonsinusoidal pulse signal to a heater coil for adjusting the ratio between inductive and resistive heating of an article. They are only different in wordings and other minor variations within the scope of the invention.

This is a provisional double patenting rejection since the conflicting claims have not in fact been patented.

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Art Unit: 3742

6. Claims 1, and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Segsworth (US 3,436,641).

All that claimed is a power source providing current pulses with high frequency harmonics to an induction heater coil. This is clearly shown by Segsworth as it shows a pulsed switching power supply with harmonics for an induction heating device (col. 8, line 5-9), see Figures 1-9 and col. 3, lines 37-64.

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 2-6, 8-17, 24 and 26-28 are rejected under 35 U.S.C. 103(a) as being obvious over Segsworth (US 3,436,641), in view of Pilavdzic et al (US 2003/0121908 A1) or Nishi et al (US 5,294,769).

Segsworth shows the claimed power supply for an induction heating device but without the structural details of the induction heating device. Pilavdzic shows a heating device with coil, core and yoke for induction heating and resistive heating a flowable material (see Figures 3-15 and col. 5, line 42 – col. 6, line 65). It teaches to adjust the ratio between inductive heat and resistive heat to control the heating of the material (col. 13, lines 14-26). Nishi also shows a heating device with both induction heating and direct heating (see all Figures and col. 12, line 1 – col. 46). It states that the ratio of the direct resistance heating and inductive heating can be

Art Unit: 3742

determined to control the heating efficiency (col.13, line 8-14). It would have been obvious to an ordinary skill in the art at the time of invention to modify Segsworth to use its power supply to any suitable induction heating devices including the heaters of Pilavdzic or Nishi to increase its applicability and usefulness.

9. Claims 1-17, 24 and 26-28 are further rejected under 35 U.S.C. 103(a) as being obvious over Pilavdzic et al (US 2003/0121908 A1) or Nishi et al (US 5,294,769), in view of Segsworth (US 3,436,641).

Pilavdzic shows a heating device with coil, core and yoke for induction heating and resistive heating a flowable material (see Figures 3-15 and col. 5, line 42 – col. 6, line 65). It teaches to adjust the ratio between inductive heat and resistive heat to control the heating of the material (col. 13, lines 14-26). Nishi also shows a heating device with both induction heating and direct heating (see all Figures and col. 12, line 1 – col. 46). It states that the ratio of the direct resistance heating and inductive heating can be determined to control the heating efficiency (col.13, line 8-14). Either Pilavdzic or Nishi shows every feature as claimed except for the details of the power source. Segsworth shows a pulsed switching power supply with harmonics for an induction heating device (see Figures 1-9 and col. 3, lines 37-64). It would have been obvious to an ordinary skill in the art at the time of invention to modify Pilavdzic or Nishi to use a power supply providing pulses for more precise power switching control and better heating result, in view of the teaching of Segsworth (col. 7, line 58 – col. 8, line 9).

Art Unit: 3742

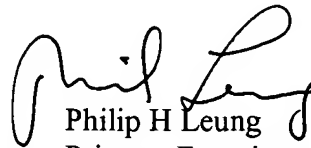
10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

MacKenzie et al (US 4,085,300) and Yarwood et al (US 4,289,946) are further cited to show induction heaters with various claimed features.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Philip H Leung whose telephone number is (571) 272-4782.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robin Evans can be reached on (571) 472-4777. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Philip H Leung
Primary Examiner
Art Unit 3742

P.Leung/pl
3-7-2005